

WHAT IS CLAIMED IS

1. A DNA comprising a DNA having a nucleotide sequence encoding an amino acid sequence of a human-originated prostacyclin synthase substantially depicted in Sequence Listing, Sequence No. 12.
2. The DNA of Claim 1, comprising a DNA having a 28th-1527th nucleotide sequence substantially shown in Sequence Listing, Sequence No. 11.
3. The DNA of Claim 2, comprising a DNA having a 28th-1527th nucleotide sequence shown in Sequence Listing, Sequence No. 11.
4. A polypeptide comprising an amino acid sequence of a human-originated prostacyclin synthase substantially shown in Sequence Listing, Sequence No. 12.
5. The polypeptide of Claim 4, comprising an amino acid sequence of a human-originated prostacyclin synthase shown in Sequence Listing, Sequence No. 12.
6. A recombinant vector comprising the DNA of any one of Claims 1 to 3.
7. A host cell transformed with the recombinant vector of Claim 6.
8. A transformed cell identified by International Deposit No. FERM BP-4653 or FERM BP-4654.
9. A method for preparing a human-originated prostacyclin synthase, comprising culturing the host cell of Claim 7 in a medium and recovering a human-originated prostacyclin synthase from the obtained culture.
10. An antibody having a reactivity with a human-originated prostacyclin synthase comprising an amino acid sequence substantially shown in Sequence Listing, Sequence No. 12.
11. A pharmaceutical composition comprising the DNA of any one of Claims 1 to 3 and a pharmaceutically acceptable carrier.

12. A pharmaceutical composition comprising the recombinant vector of Claim 6 and a pharmaceutically acceptable carrier.
13. A pharmaceutical composition for promoting prostaglandin I₂ production, comprising the DNA of any one of Claims 1 to 3 and a pharmaceutically acceptable carrier.
14. A pharmaceutical composition for promoting prostaglandin I₂ production, comprising the recombinant vector of Claim 6 and a pharmaceutically acceptable carrier.
15. A pharmaceutical composition for treating a disease induced by a low production of prostaglandin I₂, comprising the DNA of any one of Claims 1 to 3 and a pharmaceutically acceptable carrier.
16. A pharmaceutical composition for treating a disease induced by a low production of prostaglandin I₂, comprising the recombinant vector of Claim 6 and a pharmaceutically acceptable carrier.
17. A method for promoting prostaglandin I₂ production, comprising introducing the DNA of any one of Claims 1 to 3 into a human or an animal.
18. A method for promoting prostaglandin I₂ production, comprising introducing the recombinant vector of Claim 6 into a human or an animal.
19. A method for treating a disease induced by a low production of prostaglandin I₂, comprising introducing the DNA of any one of Claims 1 to 3 into a human or an animal.
20. A method for treating a disease induced by a low production of prostaglandin I₂, comprising introducing the recombinant vector of Claim 6 into a human or an animal.